

**Appl. No. 10/088,727
Att. Docket No. 10191/2289
Reply To Final Office Action of 8/5/04**

REMARKS

Claims 16 to 42 are pending.

Applicants respectfully requests reconsideration of the present application in view of this response.

It is believed that this Amendment does not raise new issues that would require further consideration and/or search, and also does not raise the issue of new matter. It is also believed and respectfully submitted that this Amendment places the application in better form for appeal by materially reducing or simplifying the issues for appeal.

With respect to paragraph one (1) of the Final Office Action, Applicants thank the Examiner for acknowledging the drawings received on January 13, 2004. Also, Applicants thank the Examiner for accepting the drawings over the objections of paragraph two (2) of the Office Action of September 23, 2003.

With respect to paragraph two (2), the drawings were objected under 37 C.F.R. § 1.83(a). It is respectfully submitted that the feature of projecting a first image on a first surface and a second image on a second surface of the display surface does not need to be shown because under 37 C.F.R. § 1.81 (a) -- to which § 1.83 (a) is subject, an applicant is only "required to furnish a drawing of [the] invention where necessary for the understanding of the subject matter sought to be patented". It is respectfully submitted that this feature is fully described by the Specification, so that a drawing of this feature is not necessary.

Applicants direct the Examiner's attention to page 8, line 27 to page 9, line 2 of the Specification, which states:

In Figures 7a and 7b, a display surface may be divided into a first surface portion 61 and a second surface portion 62. Figure 7a illustrates a view onto surface portions 61 and 62 from a viewer's height corresponding to the height of instrument panel 3. Figure 7b illustrates a plan view from the position of projection unit 1 or 10.

An image for a driver may be projected onto first surface portion 61, and an image for a passenger onto second surface portion 62, so that different images may be displayed for the driver and the passenger. In addition to an example embodiment of surface portions (illustrated in Figures 7a and 7b) having a triangular base outline, it may be possible to

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provide surface portions having a rectangular or trapezoidal display surface, or to space the surface portions apart.

Nevertheless, while it is not believed to facilitate matters, it is noted that the drawings objection applies to claim 25 (and its dependent claims 26 to 30) and claim 42, and not to the remaining claims. Accordingly, claims 25 and 42 have been rewritten so that the first and second images are no longer positively recited, so as to obviate the rejection. It is therefore respectfully requested that this drawing objection be withdrawn as to claims 25 to 30 and 42 in view of the foregoing.

With respect to paragraph four (4), claims 16 to 26 and 31 to 41 were rejected under 35 U.S.C. § 103(a) as obvious over Jost et al., U.S. Patent No. 4,919,517 (the “Jost” reference) in view of Kleinschmidt, U.S. Patent No. 6,750,832 (the “Kleinschmidt” reference).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claims 16 and 33 provide for the generation of a real image onto a display surface on the instrument panel of the vehicle via a projection unit arranged on a vehicle roof and/or on an inside mirror of the vehicle. In this context, this is to *generate a real image*. Due to the placement of the projection unit in the roof of the vehicle, an appropriate space-saving projection is possible. In comparison to a backwards projected real image, for example, little space is required. Also, in contrast to a virtual image, the dependence on the viewing angle of a viewer is greatly reduced.

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In contrast, the “Jost” reference purportedly concerns an image-reproducing device for a motor vehicle. The “Jost” reference states that a real image is represented as virtual image in the a user’s field of vision via a lens and the windshield following the lens in the path of the light rays. In the “Jost” reference, the real image and the lens are arranged at an upper edge of the windshield. Furthermore, a mirror element is arranged between the lens and the windshield within an area of the surface of an instrument panel. The “Jost” reference states that since the mirror element is arranged at a large distance from the lens element, the virtual image falling into the eye of the vehicle user is matched to the respective prevailing conditions. (Abstract, lines 1 to 13).

Accordingly, the “Jost” reference does not disclose or suggest the features in which *a real image is generated* onto a display surface on the instrument panel of the vehicle via a projection unit arranged on a vehicle roof and/or on an inside mirror of the vehicle, as provided for in the context of claims 16 and 33. The “Jost” reference merely indicates that a image-reproducing device provides a displayed image as a virtual image on the windshield via a mirror. Accordingly, the image is perceived by a viewer as a virtual image. The image shown in the liquid crystal display is not directly visible to a viewer, who can only perceive the virtual image. The “Jost” reference does not disclose a real image that is generated onto a display surface outside the projection unit. Nothing in the “Jost” reference discloses or suggests the claim features of generating a real image onto a display surface on the instrument panel of the vehicle via a projection unit arranged on a vehicle roof and/or on an inside mirror of the vehicle, as provided for in the context of claims 16 and 33.

It is respectfully submitted that the obviousness rejections are not sustainable because it is based on the Final Office Action wrongly asserting that the projection surface according to “Jost” is suitable for generating a real image. To project a real image, a mirror surface cannot be used, for the light beams of the real image would only be diffracted by the mirror surface, so that a real image would not be visible for the observer. Hence light-diffusing surfaces are used as a projection surface for real images, so that the real image can also be projected onto this surface. By contrast, reflective surfaces, such as, for example, the windshield, are not suitable for the projection of real images. They can only be used to

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generate virtual images by a suitable deflection of light. Accordingly, it is respectfully requested that the obviousness rejections be withdrawn for these further reasons.

Additionally, the “Kleinschmidt” reference purportedly concerns an information display system with an output display, an optical device for deflecting an illumination beam path into a user’s field of vision. The subdividable output display allows a user to partly obtain information in a vehicle via a head-up display and partly via a traditional or back-projection display. (Abstract, lines 1 to 10). Furthermore, the “Kleinschmidt” reference states that “FIG. 23 shows the combination of FIG. 19 and FIG. 20 with expansions” such that “[t]he virtual head-up display VINST/NRSP and the real, back-projected image are thus displayed combined on the diffuser DIF.” (Col. 15, lines 6 to 9).

Accordingly, the “Kleinschmidt” reference does not disclose or suggest the features in which *a real image is generated* onto a display surface on the instrument panel of the vehicle via a *projection unit arranged on a vehicle roof and/or on an inside mirror of the vehicle*, as provided for in the context of claims 16 and 33, whether taken alone or with the “Jost” reference. The “Kleinschmidt” reference merely indicates that a real image is generated and displayed by rear projection unit. Nothing in the “Kleinschmidt” reference discloses or suggests the claim features of generating a real image onto a display surface on the instrument panel of the vehicle via a projection unit arranged on a vehicle roof and/or on an inside mirror of the vehicle, as provided for in the context of claims 16 and 33.

The Final Office Action asserts on page 4 that while “Kleinschmidt differs from Jost in that it is a rear projection system rather than a front projection system”, the “Jost” reference provides “that by using a front projector (which is well known in the art to be interchangeable with rear projections) and mounting it on the ceiling, space in the vehicle can be better utilized.” Furthermore, the Final Office Action asserts on page 5 that “given the advantageous taught by Kleinschmidt of both displaying the real image on the display surface so that the driver can see it and the virtual image on a reflective surface (windshield), and the teaching of Jost of the advantages of using a front projector mounted on the roof of the vehicle and it being in the skill of one of ordinary skill in the art to combine the teachings of Jost and Kleinschmidt, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Jost in view of Kleinschmidt so that a real image was

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generated on the display surface by the projection unit in such a manner as a user (driver) could see a real image generated on the display surface as well as the virtual image on the windshield.”

In this regard, it is respectfully submitted that the Final Office Action relies on improper hindsight reasoning. Still further, it is respectfully submitted that a *prima facie* case of obviousness has not been made in the present case, since the Final Office Action never made any findings, such as, for example, regarding what the ordinary skill level in the art would have been at the time the claimed subject matter of the present application was made. (See In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the factual predicates underlying a *prima facie* obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art)).

It is respectfully submitted that the proper test for showing obviousness is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art, and that the Patent Office must provide particular findings in this regard -- the evidence for which does not include broad conclusory statements standing alone. (See In re Kotzab, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing In re Dembiczak, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made concerning the identification of the relevant art, the level of ordinary skill in the art or the nature of the problem to be solved))). It is again respectfully submitted that there has been no such showing by the Final Office Action.

In fact, it is again respectfully submitted that the lack of any of the required factual findings in the Final Office Action forces Applicants to resort to unwarranted speculation to ascertain exactly what facts underlie the present rejections. The law requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing In re Warner, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Office has failed to carry the initial burden of presenting a proper *prima facie* case of obviousness. (See In re Oetiker, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

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For the foregoing reasons, the combination of the “Jost” reference and the “Kleinschmidt” reference does not describe or suggest the features of claims 16 and 33, so that claims 16 and 33 are allowable.

Claim 17 to 26, 31 and 32 depend from claim 16, and are therefore allowable for the same reasons as claim 16.

Claim 34 to 42 depend from claim 33, and are therefore allowable for the same reasons as claim 33.

With respect to paragraph five (5), claims 27 to 30 were rejected under 35 U.S.C. § 103(a) as unpatentable over the “Jost” reference in view of the “Kleinschmidt” reference and further in view of Hwang et al., U.S. Patent No. 6,317,170 (the “Hwang” reference).

Claims 27 to 30 depend from claim 16, and are therefore allowable for essentially the same reasons as claim 16, as explained above, since the “Hwang” reference does not cure the critical deficiencies of the “Jost” reference and the “Kleinschmidt” reference. The “Hwang” reference only refers to a projection unit which uses a laser arrangement. There is no suggestion in the references relied upon to show the virtual image as a real image via a projection unit arranged on a vehicle roof and/or on an inside mirror of the vehicle, as provided for in the context of claim 16. The system of the “Hwang” leads away from the presently claimed subject matter, since it replaces the liquid crystal display image with a laser image, so that even if the references are combined (the properness of which is not conceded), the resulting combination still does not provide for displaying a real image on a display surface outside of the projection unit arranged on a vehicle roof and/or on an inside mirror of the vehicle, such that claim 16 is allowable.

Claims 27 to 30 depend on claim 16, and are therefore allowable at least for the same reasons as claim 16.

Accordingly, claims 16 to 42 are allowable.

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CONCLUSION

In view of the above, it is believed that the objections and the rejections have been obviated, and it is therefore respectfully submitted that claims 16 to 42 are allowable. It is therefore respectfully requested that the objections and rejections be reconsidered and withdrawn, and that the present application issue as early as possible.

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